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## RAW SEQUENCE LISTING

PATENT APPLICATION: PCT/US02/36692

DATE: 12/12/2002

TIME: 11:17:18

Input File: A:\SEQUENCE.txt

Output File: N:\CRF4\12022002\PU36692.raw

3 <110> APPLICANT: Brenda F. Baker  
 4 Mark F. Beach  
 5 Kenneth L. Ibbie  
 6 Isis Pharmaceuticals, Inc.  
 8 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF VITAMIN D NUCLEAR RECEPTOR  
 EXPRESSION

10 &lt;130&gt; FILE REFERENCE: RTSP-0435

C--&gt; 12 &lt;140&gt; CURRENT APPLICATION NUMBER: PCT/US02/36692

C--&gt; 12 &lt;141&gt; CURRENT FILING DATE: 2002-11-13

12 &lt;150&gt; PRIOR APPLICATION NUMBER: 10/C00,213

13 &lt;151&gt; PRIOR FILING DATE: 2001-11-14

15 &lt;160&gt; NUMBER OF SEQ ID NOS: 94

18 &lt;210&gt; SEQ ID NO: 1

19 &lt;211&gt; LENGTH: 20

20 &lt;212&gt; TYPE: DNA

21 &lt;213&gt; ORGANISM: Artificial Sequence

23 &lt;220&gt; FEATURE:

25 &lt;223&gt; OTHER INFORMATION: Antisense Oligonucleotide

27 &lt;400&gt; SEQUENCE: 1

28 tccgtcatcg ctcccaggg

20

31 &lt;210&gt; SEQ ID NO: 2

33 &lt;211&gt; LENGTH: 20

35 &lt;212&gt; TYPE: DNA

36 &lt;213&gt; ORGANISM: Artificial Sequence

38 &lt;220&gt; FEATURE:

39 &lt;223&gt; OTHER INFORMATION: Antisense Oligonucleotide

40 &lt;400&gt; SEQUENCE: 2

41 atgcattctg cccccaggga

20

44 &lt;210&gt; SEQ ID NO: 3

45 &lt;211&gt; LENGTH: 4604

46 &lt;212&gt; TYPE: DNA

47 &lt;213&gt; ORGANISM: Homo sapiens

50 &lt;220&gt; FEATURE:

51 &lt;221&gt; NAME/KEY: CDS

52 &lt;222&gt; LOCATION: (116)...(1899)

54 &lt;400&gt; SEQUENCE: 3

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117

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63 agggagggg agggagggg agggagggg agggagggg agggagggg agggagggg

124

## RAW SEQUENCE LISTING

PATENT APPLICATION: PCT/US02/36692

DATE: 12/12/02

TIME: 14:17:17

Input Seq : A:\SEQUENCE.txt

Output Seq : N:\CRF4\12022002\PU36692.raw

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69 Phe His Phe Asn Ala Met Thr Cys Glu Gly Cys Lys Gly Phe Phe Arg
70      35      40      45
72 cga agc atc gaa ggc ggc gaa cta ttc att tgc cgc ttc gaa ggc ggc
73 Arg Ser Met Lys Arg Lys Ala Leu Phe Thr Cys Pro Phe Asn Gly Asp
74      50      55      60      65
76 tgc cgc att gaa ggc ggc ggc ggc ggc ggc tgc gaa ggc tgc ggc gtc
77 Cys Arg Ile Thr Lys Asp Asn Arg Arg His Cys Gln Ala Cys Arg Leu
78      70      75      80
80 aaa ggc tgc att ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc
81 Lys Arg Cys Val Asp Ile Gly Met Met Lys Glu Phe Ile Leu Thr Asp
82      85      90      95
84 gag gaa gtg cag agc aag cgg gag atg atc ctg aag cgg aag gag gag
85 Glu Glu Val Gln Arg Lys Arg Glu Met Ile Leu Lys Arg Lys Glu Glu
86      100      105      110
88 gag gcc ttc aag gac agt ctg cgg ccc aag ctg tct gag gag cag cag
89 Glu Ala Leu Lys Asp Ser Leu Arg Pro Lys Leu Ser Glu Glu Gln Gln
90      115      120      125
92 cgc atc att gcc ata ctg ctg gac gcc cag cat aag acc tac gac ccc
93 Arg Ile Ile Ala Ile Leu Leu Asp Ala His His Lys Thr Tyr Asp Pro
94      130      135      140      145
96 acc tac tcc gac ttc tgc cag ttc cgg cct cca gtt cgt ctg aat gat
97 Thr Tyr Ser Asp Phe Cys Gln Phe Arg Pro Pro Val Arg Val Asn Asp
98      150      155      160
100 ggt gga ggc acc cat att tcc agg ccc aac tcc aga cac act ccc acc
101 Gly Gly Gly Ser His Pro Ser Arg Pro Asn Ser Arg His Thr Pro Ser
102      165      170      175
104 ttc tct ggc gac tcc tcc tcc tcc tgc tca gat cac tgt atc acc tct
105 Phe Ser Gly Asp Ser Ser Ser Ser Cys Ser Asp His Cys Ile Thr Ser
106      180      185      190
108 tca gac atg atg gac tgc tcc agc ttc tcc aat ctg gat ctg agt gaa
109 Ser Asp Met Met Asp Ser Ser Ser Phe Ser Asn Leu Asp Leu Ser Glu
110      195      200      205
112 gaa gat tca gat gac cct tct gtg acc cta gag ctg tcc cag ctg tcc
113 Glu Asp Ser Asp Asp Pro Ser Val Thr Leu Glu Leu Ser Gln Leu Ser
114      210      215      220      225
116 atg ctg ccc cac ctg ggc gac ctg gtc agt tac agc atc caa aag ctg
117 Met Leu Pro His Leu Ala Asp Leu Val Ser Tyr Ser Ile Gln Lys Val
118      230      235      240
120 att gcc ttc gct aag atg ata cca aga ttc aga gac ctg acc tct gag
121 Ile Gly Phe Ala Lys Met Ile Pro Gly Phe Arg Asp Leu Thr Ser Glu
122      245      250      255
124 gac cag atc gta ctg ctg gaa tca agt gcc att gag ctg atc atg ttc
125 Asp Gln Ile Val Leu Leu Lys Ser Ser Ala Ile Ile Val Ile Met Leu
126      260      265      270
128 ggc tcc att gag tcc ttc att tgc gac gac att tcc ttc att ttc att
129 Arg Ser Asn Glu Ser Phe Thr Met Asp Asp Met Pro Trp Thr Cys Gly

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## RAW SEQUENCE LISTING

PATENT APPLICATION: PCT/US02/36692

DATE: 11/12/2002

TIME: 11:17:58

Input File : A:\SEQUENCE.txt

Output File : N:\CRF4\12022002\PU36692.raw

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132 aat aaa aat tat aat tat tgc gtc agt gat atg aat aaa ggc gga cac
133 Asn Gln Asp Tyr Lys Tyr Arg Val Ser Asp Val Thr Lys Ala Gly His
134 240 245 300 305
136 aat atd aat tat att gag aat ctc atc aag ttc gag atg gga atg aag 1078
137 Ser Leu Ala Leu Ile Glu Pro Leu Ile Lys Phe Gln Val Gly Leu Lys
138 310 320
140 aag atg aat ttc aat gac gag gag cat gtc atg ctc atg aat atc tgc 1126
141 Lys Leu Asn Leu His Glu Glu Glu His Val Leu Leu Met Ala Ile Cys
142 325 330 335
144 atc gtc ttc aat aat cgt ttc ggc gtc aag gac aat aag atg att gag 1174
145 Ile Val Ser Pro Asp Arg Pro Gly Val Gln Asp Ala Ala Leu Ile Glu
146 340 345 350
148 gcc atc aag gac cgc atg tcc aac aca atg cag acg tac atc cgc tgc 1222
149 Ala Ile Gln Asp Arg Leu Ser Asn Thr Leu Gln Thr Tyr Ile Arg Cys
150 355 360 365
152 cgc cac cgc ccc cgc ggc agc aac atg ctc tat gcc aag atg atc cag 1270
153 Arg His Pro Pro Pro Gly Ser His Leu Leu Tyr Ala Lys Met Ile Gln
154 370 375 380 385
156 aag cta gcc gat atg cgc agc ctc aat gag gag aat tcc aag cag tac 1318
157 Lys Leu Ala Asp Leu Arg Ser Leu Asn Glu Glu His Ser Lys Gln Tyr
158 390 395 400
160 cgc tga ctc ttc ctc aag cat gag tgc agc atg aag cta acc ccc att 1366
161 Arg Cys Leu Ser Phe Gln Pro Glu Cys Ser Met Lys Leu Thr Pro Leu
162 405 410 415
164 gtg ctc gaa atg ttc ggc aat gag atc tcc tga ctaggacagc ctgtcagggtg 1419
165 Val Leu Gln Val Phe Gly Asn Glu Ile Ser
166 420 425
168 cctcgggtggg atgctctctc caggggccacg tgcagggtcc ggggtcggcc gctactcagc 1479
169 agccctctctc aacctctcgg gattcagccc ctccctctgcc acctccctta tccaccacagc 1539
170 ccattctctc tctcgtccaa cctaaccctt ttcctggggg ctcttccccc gtcctctgag 1599
171 acctcagcca tgaggagttg ctgtttgttt gacaaagaaa cccaagtggg gccagagggc 1659
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187 aaccacaaat caaaatgpc ctggaggga ggggagpac atacaaatt caaagagat 2619
188 ctctctgca tctctctca cccacatgc tggggtctc ctctctctct actctctct 2679

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## RAW SEQUENCE LISTING

PATENT APPLICATION: PCT/US02/36692

DATE: 12/02/2002

TIME: 15:17:58

Input File : A:\SEQUENCE.txt

Output File : N:\CRF4\12022002\PU36692.raw

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223 <211> LENGTH: 21
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial Sequence
226 <220> FEATURE:
227 <223> OTHER INFORMATION: PCR Primer
228 <400> SEQUENCE: 4
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230 <210> SEQ ID NO: 5
231 <211> LENGTH: 19
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: PCR Primer
236 <400> SEQUENCE: 5
237 ggggtttttt ggggtttttt

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## VERIFICATION SUMMARY

PATENT APPLICATION: PCT/US02/36692

DATE: 12/01/2002

TIME: 15:17:59

Input Set : A:\SEQUENCE.txt

Output Set : N:\CRF4\12022002\PU36692.raw

1:1 M:27:0: Current Application Number differs, Replaced Current Application ID

1:1 M:28:0: Current Filing Date differs, Replaced Current Filing Date